

E-filed: 1/5/08

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA
SAN JOSE DIVISION

HYNIX SEMICONDUCTOR INC., HYNIX
SEMICONDUCTOR AMERICA INC.,
HYNIX SEMICONDUCTOR U.K. LTD., and
HYNIX SEMICONDUCTOR
DEUTSCHLAND GmbH,

Plaintiffs,

v.

RAMBUS INC.,

Defendant.

No. CV-00-20905 RMW

ORDER GRANTING IN PART AND
DENYING IN PART RAMBUS'S MOTION
IN LIMINE NO. 6 TO EXCLUDE THE
TESTIMONY OF PETER IVEY AND
JOSEPH McALEXANDER REGARDING
ALTERNATIVE TECHNOLOGIES AND
GRANTING IN PART AND DENYING IN
PART MOTION *IN LIMINE* NO. 7 TO
EXCLUDE THE TESTIMONY OF
McALEXANDER REGARDING JEDEC'S
KNOWLEDGE OF RAMBUS'S PATENT
RIGHTS

[Re Docket Nos. 2627 and 2628]

ORDER GRANTING IN PART AND DENYING IN PART RAMBUS'S MOTION IN LIMINE NO. 6 TO EXCLUDE THE
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C-00-20905; C-05-00334; C-05-02298; C-06-00244 RMW

TSF

United States District Court

For the Northern District of California

1 RAMBUS INC.,

2 Plaintiff,

3 v.

4
5 HYNIX SEMICONDUCTOR INC., HYNIX
6 SEMICONDUCTOR AMERICA INC.,
7 HYNIX SEMICONDUCTOR
8 MANUFACTURING AMERICA INC.,9 SAMSUNG ELECTRONICS CO., LTD.,
10 SAMSUNG ELECTRONICS AMERICA,
11 INC., SAMSUNG SEMICONDUCTOR, INC.,
12 SAMSUNG AUSTIN SEMICONDUCTOR,
13 L.P.,14 NANYA TECHNOLOGY CORPORATION,
15 NANYA TECHNOLOGY CORPORATION
16 U.S.A.,

17 Defendants.

18 RAMBUS INC.,

19 Plaintiff,

20 v.

21 RAMBUS INC.,

22 Plaintiff,

23 v.

24 MICRON TECHNOLOGY, INC., and
25 MICRON SEMICONDUCTOR PRODUCTS,
26 INC.

27 Defendants.

No. C-05-00334 RMW

[Re Docket Nos. 549 and 554]

No. C-05-02298 RMW

[Re Docket Nos. 398 and 399]

No. C-06-00244 RMW

[Re Docket No. 240 and 241]

28 This order addresses two motions brought by Rambus challenging the admissibility of the
 29 opinion testimony of Joseph McAlexander and Professor Peter Ivey. Motion *In Limine* No. 6 seeks

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C-00-20905; C-05-00334; C-05-02298; C-06-00244 RMW

TSF

to exclude both expert's opinion on the viability of alternatives to Rambus's technologies, and Motion *In Limine* No. 7 requests exclusion of McAlexander's opinion on JEDEC's knowledge of Rambus's patent rights. The Manufacturers¹ jointly oppose the motions. The court has reviewed the papers and considered the arguments of counsel.

For the reasons set forth below, the court grants in part and denies in part Motion *In Limine* No. 6. McAlexander may testify concerning the technological viability of alternatives to Rambus's designs with the exception that he may not testify regarding the purported feasibility of an STDRAM alternative. Professor Ivey is similarly precluded from testifying regarding the purported feasibility of an STDRAM alternative. McAlexander is also precluded from testifying as to the costs of implementing alternative technologies.

Motion *In Limine* No.7 is granted in part and denied in part. McAlexander may give his opinion on whether one ordinarily skilled as a memory technology engineer would have been on notice in the early to mid-1990's, based upon the evidence before JEDEC at the time, that Rambus would seek to obtain patents rights covering JEDEC's SDRAM features. However, McAlexander may not testify as to the state of mind of any particular JEDEC subcommittee member. He also is precluded from opining that the claims that issued on Rambus's patents after the JEDEC standard was adopted do not read on the JEDEC standard or that the Federal Circuit's claim construction in *Rambus Inc. v. Infineon Technologies AG*, 318 F.3d 1081, 1092-1095 (Fed. Cir. 2003) is wrong.

I. LEGAL STANDARD

Federal Rule of Evidence 702 governs the admissibility of expert testimony. An expert must be qualified by virtue of his or her "knowledge, skill, experience, training, or education." FRE 702. Expert testimony must also be helpful to the trier of fact in understanding the evidence or determining a fact in issue. *Id.* Finally, the court must be convinced that the expert testimony is reliable. *Id.* Reliable testimony must be (1) "based upon sufficient facts or data," (2) "the product of

¹ For the purposes of this order, the court uses "the Manufacturers" to mean all of the Hynix, Micron, Nanya, and Samsung entities in these cases.

1 reliable principles and methods," and (3) a sound application of the principles to the facts. *Id.*
 2 "Facts or data" may include other experts' reliable opinions or hypothetical facts that are supported
 3 by the evidence. FRE 702, Adv. Committee Note (2000); *see* FRE 703. The Supreme Court has
 4 confirmed that "the Rules of Evidence—especially Rule 702—do assign to the trial judge the task of
 5 ensuring that an expert's testimony both rests on a reliable foundation and is relevant to the task at
 6 hand." *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 597 (1993).

7 As an initial matter, the parties debate how a court should exercise its "gatekeeper"
 8 obligation regarding expert testimony. Rambus emphasizes the "substantial danger" and "quite
 9 misleading" nature of improper expert testimony. Motion *In Limine* 6 at 2:17-22 (citing cases). The
 10 Manufacturers contend that the court's gatekeeper role is a "limited" one (Opp. 2:8-9 citing 4-702
 11 WEINSTEIN'S FEDERAL EVIDENCE § 702.05 (2007) and that "rejection of expert testimony is the
 12 exception rather than the rule." FRE 702, Adv. Committee Note (2000). Putting aside the parties'
 13 characterizations of the gatekeeper role, the party offering expert testimony must demonstrate by a
 14 preponderance of the evidence that its expert's opinions are reliable. *See In re Paoli R.R. Yard PCB*
 15 *Litig.*, 35 F.3d 717, 743-44 (3d Cir. 1994). While the court has broad discretion in deciding whether
 16 that standard has been met, the court cannot shirk its gatekeeper duties. *See General Elec. Co. v.*
 17 *Joiner*, 522 U.S. 136, 142, 146 (1997); *compare with id.* at 148 (Breyer, J., concurring).

18 II. ANALYSIS

19 A. Viability of Alternative Technologies

20 Rambus moves to exclude McAlexander's testimony regarding whether various alternative
 21 technologies were viable substitutes for Rambus's technology, arguing that McAlexander's
 22 methodology is unreliable. In particular, Rambus faults McAlexander's analysis because
 23 McAlexander has not done any design work or simulations to prove that the alternative technologies
 24 would operate as anticipated. Instead, McAlexander relies on his review of JEDEC documents to
 25 support his viability conclusions. Rambus argues that McAlexander did not employ the same level
 26 of intellectual rigor that characterizes ordinary practice and that his testimony is therefore unreliable.

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C-00-20905; C-05-00334; C-05-02298; C-06-00244 RMW

TSF

1 *See Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137, 151-52 (1999).

2 McAlexander testified that he did not do any design work on alternative technologies or run
3 any simulations. Detre Decl., Ex. 5, 126:12-127:9. He explained that he was not requested to do
4 design work or simulations and that he drew his conclusions on viability based on his review of
5 documents presented to JEDEC. *Id.* The depositions of McAlexander and fellow Manufacturers'
6 expert Professor Peter Ivey suggest that design work and simulation are necessary steps to determine
7 if a chip will actually work. Detre Decl., Ex. 5 at 44:12-24 (testimony of McAlexander describing
8 process of simulating a new chip design); Ex. 4 at 14:5-23 (testimony of Dr. Ivey confirming that
9 simulation and testing are part of standard logic design).

10 The Manufacturers respond by first suggesting that performing design work and simulations
11 are not necessary for an expert's methods to be deemed reliable because the FTC found otherwise in
12 *In the Matter of Rambus, Inc.*, Docket No. 9302, Opinion of Commission (2006). Opp. 6 at 6:6-7;
13 *see id.* at 6:20-7:2. The FTC did not make a finding that design work and simulations are not
14 necessary. Although the Manufacturers cite pages 81-96 of the FTC's liability opinion where the
15 FTC discusses alternative technologies in the context of antitrust liability, the FTC does not
16 consider, at least expressly, whether design work or simulations are necessary as a basis for a
17 reliable opinion that proposed alternatives are viable substitutes.

18 The Manufacturers next argue that McAlexander's conclusions about viability are reliable
19 because many of the suggested alternative technologies are now commercially available and because
20 the alternatives would not have been presented to JEDEC if they would not work. In considering
21 expert testimony, the court does not scrutinize an expert's conclusions but rather is required to find
22 by a preponderance of the evidence that the expert's methodology is reliable. *See In re Paoli R.R.*
23 *Yard PCB Litig.*, 35 F.3d 717, 744 (3d Cir. 1994). The court concludes that McAlexander's opinion
24 that those alternatives presented to JEDEC were technologically viable is sufficiently reliable to be
25 considered by the fact-finder. McAlexander is clearly qualified to understand and explain how the
26 alternatives work. Further, although Rambus argues that presentation of an alternative at JEDEC

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C-00-20905; C-05-00334; C-05-02298; C-06-00244 RMW

TSF

1 says nothing about viability, there is sufficient evidence to allow a reasonable inference that a
 2 member company would not bring a proposal to JEDEC that could not be incorporated into a
 3 standard. Finally, the fact that many of the alternatives discussed are now commercially available
 4 suggests that they, in fact, would work as anticipated.

5 Rambus also argues that McAlexander's testimony adds nothing helpful for the jury since it
 6 is based on nothing more than various presentations to JEDEC. Rambus contends that the jury can
 7 determine what weight to give to evidence presented at JEDEC meetings without McAlexander's
 8 help. The court agrees with the Manufacturers who point out that given the number and complexity
 9 of the technical issues, McAlexander's testimony interpreting and explaining documents and other
 10 evidence about alternatives presented to JEDEC will be helpful. *See* Fed. R. Evid. 702.

11 McAlexander's report, however, provides no cost analysis except an assumption that the
 12 alternative technologies would not have been presented to JEDEC if their costs were prohibitive.
 13 This provides little foundation for an opinion that the alternatives considered would have been
 14 feasible from a cost standpoint. Further, McAlexander offers no foundation for his understanding of
 15 JEDEC committees evaluated costs or went about receiving or considering the costs of alternatives.
 16 Unlike the difficulty of understanding technical evidence, there is no reason to believe that a jury
 17 could not understand rules or policies of JEDEC and its members regarding how they evaluated
 18 costs of alternatives. McAlexander is, therefore, precluded from testifying as to the costs associated
 19 with replacing Rambus technologies with feasible alternatives.

20 Rambus's Motion *In Limine* No. 6 also addresses "self-timed DRAM" or "STDRAM," a
 21 specific alternative to certain Rambus technology advanced by Prof. Ivey and endorsed by
 22 McAlexander. Prof. Ivey conducted extensive design work and simulations of STDRAM that he
 23 includes in his reports. *See generally* Detre Decl., Exs. 1, 2 (expert reports of Dr. Ivey). Rambus
 24 does not fault Prof. Ivey's analysis of the functionality of STDRAM for the purposes of this motion;
 25 rather, Rambus argues that JEDEC could not have considered STDRAM as an alternative to various
 26 Rambus features and that Prof. Ivey and McAlexander's testimony regarding the STDRAM is

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 McALEXANDER REGARDING JEDEC'S KNOWLEDGE OF RAMBUS'S PATENT RIGHTS

C-00-20905; C-05-00334; C-05-02298; C-06-00244 RMW

TSF

1 therefore irrelevant.

2 Prof. Ivey began work on his STDRAM alternative around November of 2004. Detre Decl.,
3 Ex. 4 at 175:8-20. He testified that no one at JEDEC ever considered an STDRAM proposal,
4 although JEDEC engineers may have been aware of research into self-timed DRAM technology. *Id.*
5 at 27:17-30:13. The Manufacturers argue that while no one at JEDEC officially considered
6 STDRAM, JEDEC members would have explored the field of asynchronous DRAMs had they
7 known about Rambus's patents on various synchronous DRAM technologies.

8 The fact that JEDEC members never considered STDRAM (nor could they have, given that
9 Prof. Ivey did not develop it until 2004) means that it could not have been a close substitute that
10 could have constrained Rambus's power to raise prices on its technologies. Further, whether
11 someone would have undertaken the task of designing an STDRAM and presented it to JEDEC at
12 the relevant time if JEDEC was aware of Rambus's technology is, at best, pure speculation.
13 Accordingly, the STDRAM evidence is irrelevant to proving a relevant technology market, an
14 essential element of the Manufacturers' antitrust claims. Therefore, Prof. Ivey's testimony, and
15 McAlexander's reliance on it, is excluded.

16 **B. JEDEC's Knowledge of Rambus's Patent Rights**

17 The Manufacturers also intend to have McAlexander testify to how a reasonable JEDEC
18 representative would have read the various patent applications and patents that Rambus shared with
19 JEDEC. McAlexander's opinion is that a JEDEC member reading those materials would not have
20 understood Rambus's potential intellectual property to extend beyond memory architectures with a
21 narrow, multiplexed bus. *See* Detre Decl., Ex. 3 at 38-54 (McAlexander report, section 8).
22 Accordingly, the Manufacturers proffer McAlexander to testify that Rambus's disclosures would not
23 have put a JEDEC member on notice that Rambus could have intellectual property claims that
24 covered the SDRAM standards. *Id.*

25 Rambus argues that McAlexander's methodology "is plainly unreliable because it leads to
26 opinions at odds with the *Infineon* decision and prior orders of this Court." Motion *In limine* No. 7

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C-00-20905; C-05-00334; C-05-02298; C-06-00244 RMW

TSF

at 1. Rambus's argument would make sense if patent interpretation were that simple. But prior to the adoption of the JEDEC standard, the scope of Rambus's specification was subject to interpretation, the claims that cover the JEDEC standard had not issued, and, obviously, the *Infineon* decision had not been rendered. The question of what JEDEC members knew about Rambus's potential patent coverage at the time it adopted the standard is clearly relevant. Therefore, McAlexander's opinion as to whether an ordinarily skilled engineer in memory technology would have believed, based upon the information provided to JEDEC, that Rambus had claims or a potential basis for obtaining claims relating to JEDEC SDRAM features is admissible. The issue on which McAlexander can opine is different from the issue of how the claims of Rambus's patents issued after the adoption of the JEDEC standard should be interpreted. McAlexander is precluded from testifying that the claims that were issued after the adoption of the JEDEC standard do not cover the standard or that the construction set forth in *Infineon* is wrong. He is also precluded from testifying as to the state of mind of any particular JEDEC subcommittee member.

III. ORDER

The court grants in part and denies in part Motion *In Limine* No. 6:

1. McAlexander may testify concerning the technological viability of alternatives to Rambus's designs with the exception that he may not testify regarding the purported feasibility of an STD RAM alternative;

2. Professor Ivey is precluded from testifying regarding the purported feasibility of an STD RAM alternative; and

3. McAlexander is precluded from testifying as to the costs of implementing alternative technologies.

The court grants in part and denies in part Motion *In Limine* No. 7:

1. McAlexander may give his opinion on whether one ordinarily skilled as a memory technology engineer would have been on notice in the early to mid-1990's, based upon the evidence before JEDEC at the time, that Rambus could obtain patents rights covering JEDEC's SDRAM

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C-00-20905; C-05-00334; C-05-02298; C-06-00244 RMW

TSF

1 features;

2 2. McAlexander may not testify as to the state of mind of any particular JEDEC
3 subcommittee member; and

4 3. While McAlexander may give his opinion of how a person of ordinary skill in the art
5 would have understood Rambus' patent rights based upon information provided to JEDEC,
6 (information that did not include any claims covering the SDRAM standard), McAlexander may not
7 testify that the *Infineon* decision is wrong. Rambus may of course cross-examine McAlexander
8 regarding how a person of ordinary skill in the art would have understood the Rambus specifications
9 and patents that were provided to JEDEC.

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11 DATED: 1/5/08



RONALD M. WHYTE
United States District Judge

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C-00-20905; C-05-00334; C-05-02298; C-06-00244 RMW
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Chambers of Judge Whyte

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C-00-20905; C-05-00334; C-05-02298; C-06-00244 RMW

TSF